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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,150	08/01/2006	Satoshi Kadotani	04853.0134	5046

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EXAMINER
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PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1762

MAIL DATE	DELIVERY MODE
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07/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/588,150

Applicant(s)

KADOTANI ET AL.

Examiner

Frederick J. Parker

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1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 8 is/are rejected.
- 7) ☒ Claim(s) 3,4,6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8-1-06;7-10-07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

#### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### *Specification*

2. The disclosure is objected to because of the following informalities: 1) Under "Brief Description of the Drawings"; the two descriptions should be as separate paragraphs and not as a single narrative paragraph. (2) top page 8, the sentence " If necessary, a means for triboelectrification ...using corona discharge....is disposed to serve as a means of electrically charging..." is contradictory because the concept of tribo-charging is exclusive of and unrelated to corona discharge. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1,2,5,8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1 is vague and indefinite because (1) it is unclear where/ when in the process the step "the electrode powder is pressed by an elastic body" takes place, 2) "the extruding force" lacks antecedent basis; 3) if the powder is on a screen in non-contact with the substrate, how can the powder be adhered to the substrate by pressing/ extrusion force

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which never comes in contact with the substrate? 4) it is unclear if/ how pressing by an elastic body and the extruding force are related.

- Claim 2 is vague and indefinite because 1) line 4, it is unclear to what the term "above" refers; 2) it is unclear how/ if the feed rollers of lines 3 and 5 are related.
- Claim 5 is vague and indefinite because (1) "the extruding force" lacks antecedent basis; 2) if the powder is on a screen in non-contact with the substrate, how can the powder be adhered to the substrate by pressing/ extrusion force which never comes in contact with the substrate? 3) it is unclear if/ how pressing by a means and the extruding force are related; it is unclear whether or not the means of pressing is the same or different from the elastic body of the last line.
- Claim 8; Applicant cannot properly claim a combination of a device and a material worked upon, In re Hughes 49F. 2nd 478. There is no patentable combination of a device and the material upon which it works, In re Rishoi 94 USPQ 71. The substrate limitations are method limitations which do not further structurally define or limit the apparatus.

5. The prior art does not teach nor suggest the method and apparatus of independent claims 1 and 5, comprising the combination of applying electrode powder to a screen in a non-contact relation to a substrate, and using both electrostatic force and pressing using an elastic body, and apparatus means therefor, to apply powder onto the substrate having the advantages cited on Specification page 9, 14-22. Applicants are urged to be sure final claim wording clearly reflects the intended inventive process and apparatus.

6. The closest prior art is: US 2003/0096154 uses electrostatic force or a roll to deposit powder to form a fuel cell electrode, while noting the difficulties of using screen printing [0041].

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US 6533995 applies electro conductive powder to a continuous substrate from a hopper via a dosing device. It is also noted the PCT Search Report of 6/22/06 found no relevant prior art.

7. Dependant claims 3,4,6,7 are objected to for depending from a rejected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Frederick J. Parker  
Primary Examiner  
Art Unit 1762

fjp